The Human Side of Teaching

Supporting Online and Remote Students
Active and engaged Learning
Assessing the Affective Aspects of Learning
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Virtual Conference: July 21–23, 2021

46th Annual Conference

Improving University Teaching

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„Let‘s Talk About Science“

Workshop

Alexandra Lehmann,
Protestant Univ. of Applied Sciences RWL,
Bochum/ Germany

Martin Hirsch,
University of Applied Sciences and Arts,
Dortmund/ Germany

How do YOU define „Science“?! (collected on menti.com)

How our students define „Science“…

fig.: Word Cloud build out of **all** (n = 170) students‘ entries (https://tagcrowd.com/; 09.12.2020); Top 50 shown of of 799 possible words (at least 4 entries)

⇒„research“: 64 entries
⇒ „researches“: 12 entries
⇒ „reasearching“: 18 entries
⇒ „exploring“: 10 entries
⇒ „exploration“: 7 entries
(in total: 111 entries)

⇒ „knowledge“: 51 entries
⇒ „findings“: 33 entries
⇒ „theories“: 16 entries

… in Social Work:

fig.: Word Cloud build out of Social Work and related disciplines (n = 66) students‘ entries (https://tagcrowd.com/; 09.12.2020); Top 40 shown of of 446 possible words (at least 3 entries)

⇒„research“: 21 entries

⇒ „researches“: 11 entries

⇒ „reasearching“: 5 entries

⇒ „exploring“, „explored“: 7 entries

(in total: 44 entries)

⇒ „knowledge“: 22 entries

⇒ „findings“: 9 entries

⇒„theories“: 12 entries

… in Computer Science:

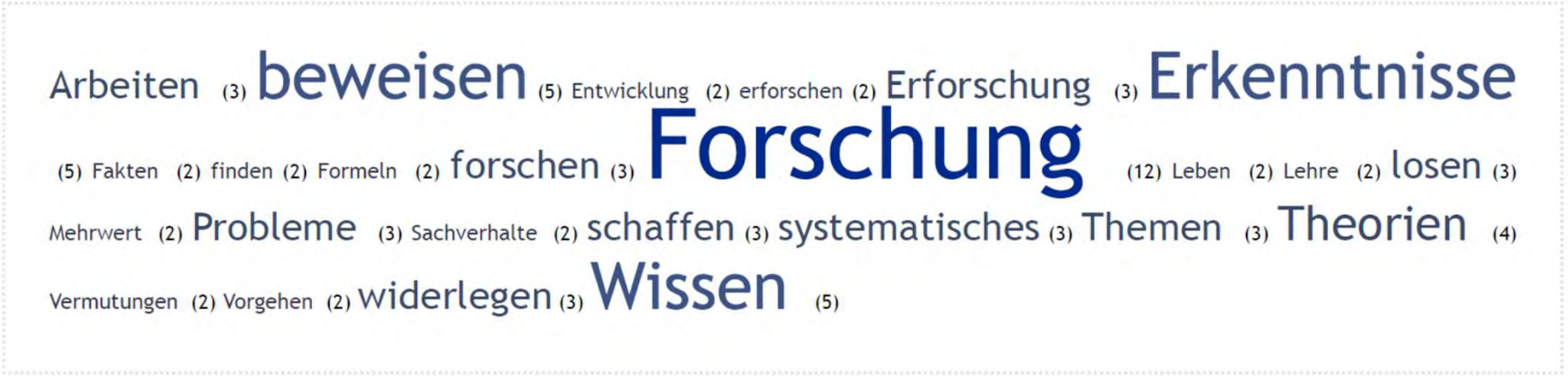


fig.: Word Cloud build out of Computer Science (n = 35) students‘ entries (https://tagcrowd.com/; 09.12.2020); Top 25 shown of of 139 possible words (at least 2 entries)

⇒„research“: 12 entries

⇒ „reasearching“: 3 entries

⇒ „exploring“: 2 entries

⇒ „knowledge“: 5 entries

⇒„theories“: 4 entries

⇒ „findings“: 5 entries

(in total: 44 entries)

And for teachers?!

fig.: Word Cloud build out of teachers‘ (different disciplines; n = 10) entries (https://tagcrowd.com/; 09.12.2020); Top 50 shown of of 442 possible words (at least 2 entries)

⇒ „knowledge“, „knowledges“: 15 entries

⇒ „society“: 5 entries

⇒ „methods“: 5 entries

⇒ „way“: 5 entries

⇒ „truth“, „truths“: 6 entries

⇒ …

In Summary

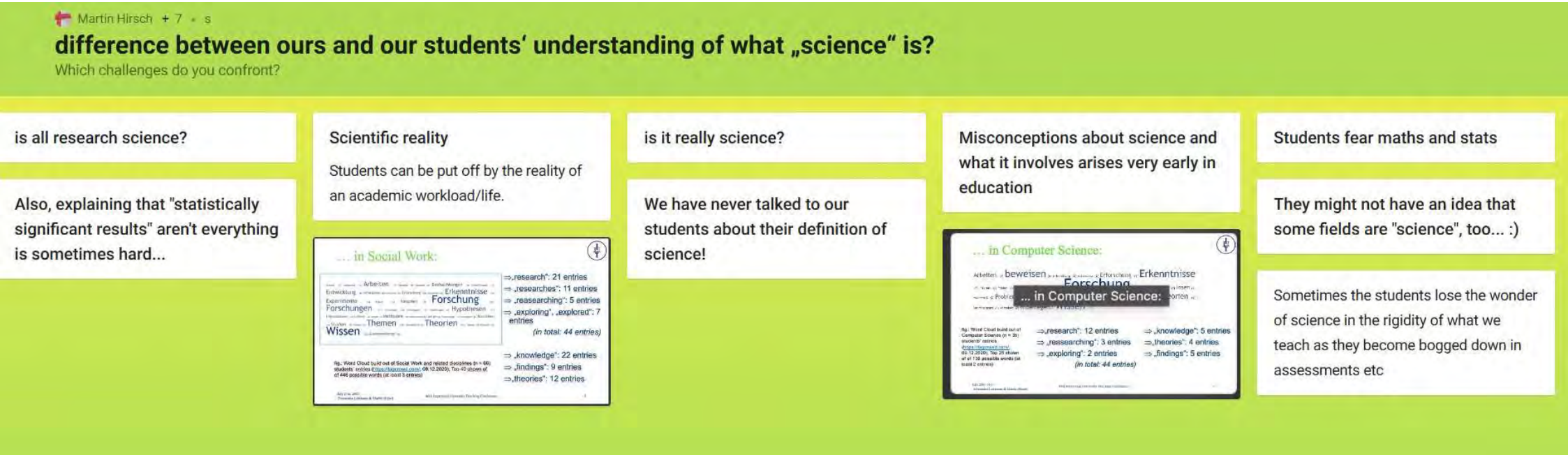
- for students, „science“ means „research“
- for teachers, „research“ doesn‘t define science

- teachers define „science“ with lots of different words – there seems to be an extended range of what „science“ implies
- students use less word to define „science“ – there seems to be a very focussed understanding in what „science“ means

What does that mean for us teachers?

- What are the problems with this difference between ours (your) and our (your) students‘ understanding of what „science“ is?
- Which challenges do you confront?

⇒ Breakout-Session 1 (10 min): (using a padlet for your thoughts…)



How do we (Alex and Martin) cope:

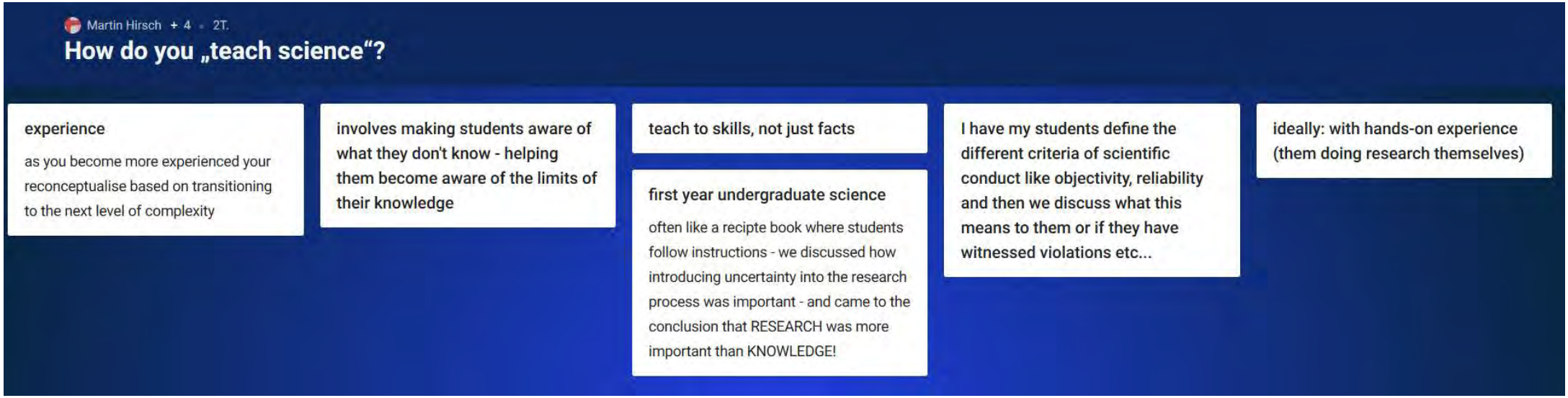
„Teaching Science“

- Alexandra: „how to work scientifically“ in Social Work
- Martin: teaching „Programming“ is more than just „hacking“

What possibilities do you have?

- How do you „teach science“?

⇒ Breakout-Session 2 (10 min): (using a padlet for your thoughts…)



What remains unsolved?!

(discussion in plenum)

- not just „textbook reading“, but making it less dull
- how to make it interesting for students
- not just „textbook reproduction“, but getting new ideas, following own thoughts
- cultural representations of ‚science‘; popular representations vs. definitions of a discipline
- there aren‘t always answers; it‘s not only about „true“ or „false“, but also about discussing ideas
- ‚research‘ is extremely complex (are students skilled for that?!)
- academic writing, academic reading is also difficult and needs to be learnt
- it‘s also about „thinking for themselves“linking science to real life outcomes engages students ad provides an anchor for understanding

Contact

Prof. Dr. Alexandra Lehmann
(psychology)

Ev. Hochschule Rheinland-Westfalen-Lippe
Protestant University of Applied Sciences of Rhineland-Westphalia-Lippe

44803 Bochum

Email: lehmann@evh-bochum.de

Prof. Dr. Martin Hirsch
(computer science)

Fachhochschule Dortmund
University of Applied Sciences and Arts

44227 Dortmund

Email: martin.hirsch@fh-dortmund.de